DoD Food Analysis and Diagnostic Laboratory
Public Health Command Region-South

Submission Guide 2012

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CHAPTER 1

GENERAL INFORMATION

1-1 Purpose

This document provides guidance for collecting and submitting samples and animal specimens to the DoD Food Analysis and Diagnostic Laboratory (FADL), Public Health Command Region-South (PHCR-S). When submitting samples to other laboratories, consult their submission guide or contact them prior to shipping the samples.

1-2 Laboratory Locations

LABORATORY	AREAS SERVICED & TESTS PROVIDED
PHCR-SOUTH **DoD Food Analysis and** **Diagnostic Laboratory (FADL)** Attn: MCHB-RS-FAD 2899 Schofield Rd Suite 2630 Fort Sam Houston, TX 78234-7583 DSN: 421-4604/4761 Comm: 210-295-4604/4761 FAX: 210-295-4612 Sample receiving area: 210-295-4210 FAX: 210-295-4005	Worldwide Full chemical, microbiological and diagnostic
Public Health Command Region-Europe (PHCR-Europe) Department of Laboratory Sciences ATTN: MCHB-RE-L CMR 402, APO AE 09180 (Landstuhl, GE) Comm: 011-49-6371-86-8300/7241	Europe, Mideast, Africa and SWA Most chemical, microbiological and limited diagnostic
Shipping address **Public Health Command Region-Europe** Department of Laboratory Sciences ATTN: MCHB-RE-L Kirchberg Kaserne, Gebäude 3809, Raum 110 D-66849 Landstuhl, Germany	
Public Health Command Region-Pacific (PHCR-Pacific) Hawaii and parts of SE Asia 1 Jarrett White Road Building 102 Room 107 Tripler AMC HI 96859-5000 Comm: 808-433-6623	Limited microbiological

1-3 General Submission Guidance

a. Samples submitted must be representative of the sample population being tested. When submitting a sample in conjunction with a customer complaint about a particular item lot, send only samples that exhibit the same problem characteristics. However, samples from another lot can also be submitted as a "normal" for comparison.

b. Requests for laboratory testing of food should be submitted on DA Form 7539, 'Request for Veterinary Laboratory Testing & Food Sample Record'. The most current version of the DA Form 7539 can be found at http://www.army.mil/usapa/eforms/pdf/A7539.PDF . Refer to the appropriate section of this guide for the forms to submit diagnostic blood/serum samples. Samples submitted in support of customer complaints or possible foodborne illness investigations should include a complete product history and/or customer complaint history in block 12 of the form. Provide as much information to the laboratory as possible. This will ensure that samples are tested quickly and accurately.

c. When shipping refrigerated and/or perishable items, include an additional sample item marked "pilot sample" to be used for determining receipt temperature. The pilot sample should be the same product type and size as the samples being submitted for testing. Pilot samples are not required for frozen product. If the product is in a dry condition or is canned, it need not be refrigerated for shipment nor accompanied by a pilot sample. Pilot sample should be listed in block 9 on the DA 7539. Do not list as a separate sample on page two.

d. Pack samples carefully to prevent damage during transit. Individual samples should be placed in separate plastic bags (zip-lock type bags work best) to prevent spillage if a sample leaks. Serum and blood tubes must be protected from breakage. Wrap them with plastic bubble wrap, gauze pads, or other suitable protective material and then place them in a plastic bag. Do not place blood/serum tubes under or between frozen chemical ice packs for shipping. They will break! Fill any empty space in the shipping container with padding (crumpled newspaper, bubble wrap, etc) to minimize shifting of the contents during transit.

e. Ship perishable items in an insulated container with refrigerant.

    1) Maintain the correct temperature during transit by using sufficient refrigerant. (See Table 1-1)

    2) If using wet ice (ice cubes, flakes, etc), do not dump ice into the shipping container. Place the ice in heavy-weight plastic bags that will contain

the water produced when it melts. Do not place samples in the same bag with the ice.

3) Individual samples must be labeled with a submitter sample number corresponding to the DA 7539. Do not cover important information such as product codes, expiration dates, UPC's, etc.

4) Dry ice is required to keep frozen samples frozen during shipment. Frozen chemical ice packs will not keep frozen items frozen during shipment to the laboratory. Using dry ice for shipment of samples is hazardous if proper precautions are not taken, such as using gloves when handling the dry ice or not inhaling the gas fumes from the dry ice – especially in an enclosed area. Do not use dry ice to ship chilled products. Ensure a dry ice label is placed on the outside of the shipping container.

5) When shipping heavy or bulky items such as large cans or gallon jars, pack the items carefully. Use extra packing material and, if necessary, ship in several boxes rather than in one heavy one. If the items are swollen, place them in plastic bags to contain any leakage.

6) Ship perishable samples by express or overnight delivery. Whenever possible, do not ship chilled/frozen samples on a Thursday for Friday delivery. The laboratory is not staffed to receive samples on weekends. Therefore, if the samples are not delivered on Friday (for whatever reason), the samples will probably not be testable when they are finally received the following Monday.

7) Samples submitted for other than routine testing should include a complete product history and/or customer complaint history. Complete and accurate information and details will be included in the remarks section of the DA Form 7539. If there is not enough space in the remarks section, use a continuation sheet and attach it to the DA Form 7539. This will enhance the laboratory's ability to accurately test submitted samples.

8) Notify the laboratory whenever a shipment is made. Notification can be telephonic or electronic (E-Mail, FAX, etc.). Include the name of the carrier and the shipment tracking number, if known. Personnel should utilize the laboratory's database in Lotus Notes to complete and print the DA Form 7539. This will automatically alert the laboratory of incoming samples.

9) Shipments from **overseas** to the Fort Sam Houston or Hawaii labs **require** a USDA import certificate (s) for specific products, i.e. meats. If

the permit or import certificate is not attached, the shipment will be delayed by customs and the samples may not be testable when received. If not cleared by customs, they will be returned to the submitter by the shipping company. If you do NOT have copies of the appropriate certificates, contact the receiving laboratory for a copy. Read the USDA permits, because they contain specific restrictions on what items can and cannot be submitted. The permits are also available on the FADL website at http://www.vetlab.army.mil/index.html Go to Documents and Forms/FSTS/Permits.

10) All test request forms must include the name, Email, and a phone number for a point of contact who is familiar with the samples being submitted. This information will be used by the laboratory if additional information is needed prior to testing.

NOTE: The FADL does not automatically test food products for all characteristics listed in this guide. If no specific testing is requested, samples will be analyzed using the lab's current protocol for that specific food type. **If the customer requires additional testing, please coordinate with the FADL before shipping the samples.**

Table 1-1 Recommended Refrigerant Ratios

Outside Temperature	Hours in Transit	Pounds of Sample	Pounds of Dry Ice (frozen)	Pounds of Wet Ice (chill)
Below 10°C or 50°F	48 24	1 1	1.3 0.75	2.0 1.25
10°C-27°C or 50°F-80°F	48 24	1 1	1.9 1.3	3.0 2.0
27°C-38°C or 80°F-100°F	48 24	1 1	2.5 1.9	4.0 3.0
Above 38°C or 100°F	48 24	1 1	5.0 2.5	Do Not Ship 4.0

1-4 Origin Sampling Guidance

a. Commercial Sanitary Audits

The following guidance for sample selection will be used for all items except those items specifically identified. Auditors should select a minimum of three samples from three different lots or three different products. This means that a total of nine individual items (plus pilot samples, if needed) will be sent to the lab for testing. See additional guidance below.

1) **Initial Audits**

Sample only those items the producer is offering for sale to the government. When possible submit three different products.

a) Ice cream

(1) Product must be frozen and received frozen by the laboratory. Auditor will probably not be able to sample product being produced during audit but will have to select from previous lots stored in freezers on site.

(2) When possible, select samples of high risk such as those items with supplemental ingredients added after pasteurization (fruits, nuts, etc).

(3) For each product selected, submit 2 samples in retail containers; each sample should be a minimum of 8 ounces, 257 grams (1 pint, ½ gallon). Individual serving containers (2 – 3 oz.) will require 4 to 6 of each item.

b) Cheese

(1) Submit 2 samples of each product.

(2) Samples should be a minimum of 6 oz. each and in retail packaging when possible. Items may be from production during audit or previously produced.

c) Ready to cook (raw) products

(1) Not routinely tested for pathogens which would be killed during cooking.

(2) Submit 2 samples of each product; minimum of 8 oz. each.

d) Ready to eat and partially cooked products

(1) May be tested for pathogens, depending upon product.

(2) Emphasis should be placed on items which require additional handling or processing during preparation. Examples include salads/greens with added ingredients;

prepared salads with meat/fish; and sandwiches with multiple components.

(3) Submit two samples of each product; minimum of 8 oz. each. **Note**: Sandwich testing does not include bread so multiple samples may be required to meet sample size.

e) Water

(1) Finished product- submit 2 liters from each lot being sampled.

(2) Tap, source, well, etc. – aseptically collect and submit 2 liters in pre-cleaned plastic bottles.

f) Catering operations

(1) Emphasis should be placed on items which require additional handling or processing during preparation. Two 8 oz. (or larger) samples of each product selected should be submitted. Do not submit raw products that are produced elsewhere.

(2) Auditor should be prepared to collect environmental swabs during the visit. This is one of the best ways to check sanitation. See chapter 3 for additional guidance.

2) **Special and Directed Routine Audits**

a) Sampling should be limited to samples related to why the audit is being performed, i.e., failure of previous audit, nonconforming lab results, etc.

b) If facility is requesting adding additional products to existing contracts, those items should be the ones selected.

3) **Food and Water Risk Assessment (FWRA)**

Follow instructions provided by the tasking document.

1-5 Destination Monitoring Sampling Guidance

a. **Objective:**

To provide continuous surveillance laboratory examination of foods distributed through the DOD system with emphasis on potentially hazardous foods.

b. **General:**

Samples should be selected **Monday** and/or **Tuesday**, when practical, and shipped **to arrive** at the laboratory **no later than** Wednesday of the assigned week. Submissions should be entered into the Lab Submissions and Sample Management database in Lotus Notes. If duplicate samples are submitted, they will be considered one sample. In addition to the requested samples, the local commander has the discretion to submit any sample at any time that he/she deems necessary.

c. **Sample selection criteria**

1) In accordance with AR 40-657, "Regardless of source, representative sampling is directed. This means that enough small samples covering the wide range of brands offered be represented. This may require multiple samples to be submitted." Care should be taken to ensure that all items in the immediate geographic area of responsibility are represented (DeCA, MWR, AAFES, Prime vendor, etc.).

Table 1-2 Representative Sampling

Number of Brands	Number of Brands to Select
1-2	1
3-5	2
6-10	4
11-15	7

2) When possible, emphasis should be placed on sampling items from producers listed in the "Worldwide Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement. Other selections should be made from imported items such as fish and cheeses. The focus should remain on "potentially hazardous foods".

d. **Destination monitoring guidance by commodity**

1) DAIRY

* Send freshest products (with the maximum shelf life) when possible. Submission of any shelf life or code sheets on the sample is helpful to laboratory personnel.

a) **Fresh Fluid Dairy:** Submit two items from the same lot as one sample. Products should be a minimum of 4 oz of each. Submit the freshest product available (maximum shelf life remaining). Enter the DATE OF PASTEURIZATION for each sample as additional information (enclosed by parentheses) in the "Product Code" block on page 2 of the DA Form 7539. Place milk containers upright and inside a waterproof bag (ex. Ziploc) to contain leakage during transit. Any sample larger than ½ gallon should be aseptically sampled.

b) **Frozen Dairy (Ice Cream & Novelties)**: Submit two items from the same lot as one sample. Containers should be a minimum of 1 pint or 8 ounces. Novelties may require more than two to meet the 8 oz. minimum. Please include any external retail package when submitting novelties. Shipments of frozen samples do not require a temperature pilot sample but must be shipped with enough dry ice to maintain the samples in a frozen state.

c) **Other Frozen Dairy:** Please include any external retail package. Submit two items from the same lot as one sample. Containers should be a minimum of 1 pint or 8 ounces. Shipments of frozen samples do not require a temperature pilot sample but must be shipped with enough dry ice to maintain the samples in a frozen state.

Examples: Yogurt, Sherbet, soft serve mixes (Ice cream, ice milk or yogurt), etc.

d) **Powdered Infant Formula:** 8 oz minimum per sample. Emphasis should be placed on products being delivered to hospitals, day care facilities, etc. One container is sufficient.

e) **Cultured Dairy:** Submit two items from the same lot, a minimum of 4 oz of each product/sample. Place samples inside a waterproof bag (ex. Ziploc) to contain leakage.

f) **Cheeses:** Submit a minimum of 8 ounces of each product/sample. Place an emphasis on imported cheeses.

2) FRUITS AND VEGETABLES

a) **Processed Fruits and Vegetables:** A minimum of 8 ounces per sample should be submitted (One sample of each product).

Examples: Bagged Salads, shredded lettuce, cut melons, fruit salad, and sliced mushrooms.

b) **Whole Fresh Fruit and Vegetables:** Submit whole produce for pathogen testing. Submit a minimum of 8 ounces per sample. Place emphasis on samples of imported whole produce. Send a pilot if the whole produce is retailed or served in a chilled state. If the whole produce is stored in a non-refrigerated state, no pilot is required.

Examples: Strawberries, spinach, whole mushrooms, lettuce, green or red onions, grapes, avocados, mangos, and cantaloupes. Bagged salads do not count as a whole fresh fruit and vegetables. Do not send coconuts.

3) SEAFOOD

a) **Seafood (Raw):** Fresh product is preferred; if not available, submit frozen. Submit two items from the same lot as one sample. Packages should be approximately 1.5 pounds each.

Examples: Shrimp, Tilapia, Tuna, Mahi-Mahi, Snapper, Salmon and Flounder.

b) **Seafood (Canned/Packaged RTE):** Submit a minimum of 8 ounces per sample. Do not select items that contain sauce (tomato, mustard, etc.).

Examples: Canned seafood and laminated pouches.

c) **Seafood (Fresh RTE):** (other than canned/pouches) Submit a minimum of 8 ounces per sample.

Examples: Fresh or Frozen Cooked Shrimp, Crab Meat, Imitation Crab Meat, Oysters, Surimi, Salmon, Frozen breaded (ready to eat) seafood.

4) MEATS

a) **Ready-to-eat (RTE) Fully Cooked Processed Meats:** Submit a minimum of 8 oz. of each product/sample. Aseptically drawn samples from the deli, Dining Facility, or MWR clubs are acceptable. Do not submit canned items.

Example: Lunch meat, sausages, Little Smokies, hams, etc.

b) **Ground Meats:** Please select samples of both final grind beef (commissary or producer packed) and coarse ground beef samples (packer chub). Submit at least 2 packages of the same lot of approximately 1.25 lbs per package. For other ground meats (pork or poultry), submit 1 package of at least 1 lb.

5) ICE

a) **AAFES ice: Refers to ice that is produced, bagged, and sold at an AAFES location.** Submit approximately 1 pound of ice in either an AAFES retail bag or Ziploc bag. If the bag is not marked, indicate date of production. Shipments of frozen samples must be shipped with enough dry ice to maintain the samples in a frozen state. Ensure that the sample packages do not come in direct contact with the dry ice. No temperature pilot is required.

b) **Commercial Ice**: Refers to ice that is produced and bagged by a commercial enterprise outside the base or installation. This ice maybe used or sold at DOD food facilities**.** Submit approximately 1 pound of ice in either a retail bag or Ziploc bag. If the bag is not marked, indicate date of production. Shipments of frozen samples must be shipped with enough dry ice to maintain the samples in a frozen state. Ensure that the sample packages do not come in direct contact with the dry ice. No temperature pilot is required.

6) OTHER FOOD ITEMS

a) **Sandwiches:** (pre-prepared): Samples should be selected from directory-approved sources. Do not send in sandwiches made by the commissary deli. Submit a minimum of 8 oz of each sample. Two or more sandwiches, from the same lot, may be combined to meet the weight requirement.

b) **Prepared Salads:** Submit a minimum of 8 oz of each product/sample. Aseptically drawn samples from larger containers are acceptable. Place salad containers inside a

waterproof bag (ex. Ziploc) to contain leakage. Pack all salads carefully with extra padding to prevent bursting during transit.

Examples: Potato salad, egg salad, cole slaw, ham salad, macaroni salad and similar deli salad products. Do not send bagged salad as a prepared salad.

c) **Other PHFs:** Examples – Dairy and non-dairy dips, spreads, kimchee, and tofu. Kimchee samples should consist of at least 28 to 32 ounces (submit two jars from the same lot as one sample if necessary). Other samples require a minimum of 8 ounces (1 container).

7) DESTINATION MONITORING GUIDANCE FOR ENVIRONMENTAL SWAB AND LUM-T TESTING

a) Samples should be collected **Monday** and/or **Tuesday**, and shipped **to arrive** at the laboratory **no later than** Wednesday of the assigned week.

b) PHCD submitting units are responsible for procuring environmental swabs for this program. There are two different swabs required, one for APC/Coliforms and the other for *Listeria*. Supplies may be ordered from 3M 800-328-6553, http://solutions.3m.com/en_US/?WT.mc_id=www.3m.com/us

c) For APC/Coliform testing – order 3M™ Swab-Sampler Neutralizing Buffer: Catalog # RS-960-10NB.

d) For *Listeria* testing – order 3M™ Swab-Sampler DE/Neutralizing Broth: Catalog # RS-960-10-DE.

e) Each PHCD will perform environmental swabbing at each commissary within their area of operation. Three pairs of swabs will be taken in a commissary processing area (Deli, meat dept, fish dept, sushi prep area, etc.). Three separate surfaces areas will be swabbed. Suggested surface areas to swab include:

- Mechanical equipment such as cutters, slicers, etc.
- Product contact surface such as a processing counter surface, cutting boards, etc.
- A hand held utensil such as knife, spoon, etc.

f) An example of swabs collected would be similar to those found below:

Sample #1: 1st APC swab taken from slicer blade.

Sample #2: 1st Listeria swab taken from adjacent area of the slicer blade.

Sample #3: 2nd APC swab taken from cutting board.

Sample #4: 2nd Listeria swab taken from adjacent area of the cutting board.

Sample #5: 3rd APC swab taken from second slicer blade.

Sample #6: 3rd Listeria swab taken from adjacent area of the second slicer blade.

g) All testing will be done after cleaning and sanitizing, but prior to processing. Swab the first surface area using one Aerobic Plate Count (APC)/coliform swab. Then use a *Listeria* Rediswab to test an adjacent area of the same surface. Repeat for each surface area being tested.

h) If the personnel tasked for swabbing have access to a luminometer (LUM-T, FireFly, LUMGiene, NovaLum)**,** swab another adjacent area with the luminometer swab and include the reading in Block 13 on page 2 of the DA Form 7539, in the disposition section of the Sample Number that corresponds with the APC/coliforms swab. When the DOD FADL sends out the results, the submitting unit can compare how their LUM-T reading correlates with the APC swab count.

i) Ensure that the luminometer swabs are taken after the cleaning and rinse step but before the sanitizer is applied or wait at least thirty minutes after application of the sanitizer allowing it time to dry completely. Repeat this process for the remaining surface areas.

j) Ensure the swab tubes are properly labeled with the item name and swab type (*Listeria* or APC/coliforms). Do not write “L. mono” on the form. It is not the same as *Listeria*. On the sample submission form list the information for the first APC/coliform swab in the area designated for the first sample. In the sample description block, describe what piece of equipment or surface area was tested and indicate the size of the surface area

sampled. No other blocks need to be completed. In the area for the second sample, enter the information for the *Listeria* swab. Repeat for all other sets of swabs.

k) After sampling, swabs must be shipped CHILLED to the laboratory using frozen gel packs. Use wet ice only if gel packs are not available. Place the swabs in a Ziploc bag to contain any liquid in case a swab should leak. For valid results, the following points must be maintained:

- Testing must begin within 24 hours of sampling; therefore the swabs must be shipped the day of sampling.
- Ship for overnight delivery.
- Maintain temperature at 0 to 4.4°C (32 to 40°F) during transit.
- Use an unopened swab tube as a Pilot Sample in the shipping container.

CHAPTER 2

SUBMISSION GUIDANCE BY FEDERAL SUPPLY CLASS

2-1 Purpose

This chapter provides guidance for submitting specific sample types by **Federal Supply Class Food Category** for laboratory testing. The far-right Notes column in the **Appendix O lists routine tests performed at the FADL based on sample type. Sample amounts are based on routine testing protocols. If you need additional tests, please call the laboratory for additional sample requirements**. The information provided is not all-inclusive and may not apply to all of the laboratories. If no specific testing is requested, samples will be analyzed using the lab's current protocol for that specific **Food Category**. The laboratory can assist in ensuring that the appropriate samples are submitted and tested to meet your requirements. Destination Monitoring Sampling Program samples may have different submission criteria from those listed in this chapter. Please refer to the instructions given in chapter 1, part 5.

Federal Supply Class

Food Category 8905
Meat, Poultry, Fish and Shellfish

Raw Products

Quantity:

a. Ground beef: submit a minimum sample of 1.25 lbs.

b. Other ground meats (pork or poultry): submit a minimum sample of 0.5 lb.

c. Raw Seafood-includes finfish, shellfish, mollusks and crustaceans. Submit a minimum of 1.5 lb., two or more packages from the same lot may be combined to meet weight requirement for the sample.

Sample Selection and Shipping Instructions:

If product is received/sold chilled, submit chilled and include a like item as a pilot sample. The pilot sample should be clearly labeled “Pilot” and described in block 9 of submission form DA 7539. Upon arrival to the lab, temperature must be between 0 ^{o}C and 7^{o}C, except fresh dairy that should arrive at the lab between 0 C and 4.4 C.

a. If product is received/sold frozen, submit frozen without a pilot sample. Ship with dry ice to keep samples frozen.

b. Enclose each sample container in a separate plastic bag to contain leakage.

c. Individual samples must be labeled with a submitter sample number corresponding to the DA 7539. Do not cover important information such as product codes, expiration dates, UPCs, etc.

d. Refer to Paragraph 2.1 for additional guidance.

Remarks:

Psychotropic plate count in meats is a routinely performed test. Interpretation is left to the customer’s criteria. There is no action limit for psychotropic counts. It is only considered a quality indicator.

Processed Products
(Ready to eat products to include sandwiches and prepared salads)

Quantity:

Submit at least 8 oz (226.8 grams).

Sample Selection and Shipping Instructions:

a. If product is received/sold chilled, submit chilled and include a like item as a pilot sample. The pilot sample should be clearly labeled "Pilot" and described in block 9 of submission form DA 7539. Upon arrival to the lab, temperature must be between 0 ^{o}C and 7^{o}C.

b. If product is received/sold frozen, submit frozen without a pilot sample. Ship with dry ice to keep samples frozen.

c. Enclose each sample container in a separate plastic bag to contain leakage.

d. Individual samples must be labeled with a submitter sample number corresponding to the DA 7539. Do not cover important information such as product codes, expiration dates, UPCs, etc.

e. Refer to Paragraph 2.1 for additional guidance.

Federal Supply Class

Food Category 8910
All Dairy Foods & Eggs
(Including Powdered Infant Formula)

Fresh Milk

Quantity:

Send at least one 8 oz. (226.8 grams) samples from the same lot in their unopened original containers. If sampling from a bulk container (larger than one gal.), aseptically collect the sample(s) in sterile screw cap containers.

Sample Selection and Shipping Instructions:

a. If product is received/sold chilled, submit chilled and include a like item as a pilot sample. The pilot sample should be clearly labeled "Pilot" and described in block 9 of submission form DA 7539. Upon arrival to the lab, temperature must be between 0°C and 4.4°C.

b. If product is received/sold frozen, submit frozen without a pilot sample.

c. Enclose each sample container in a separate plastic bag to contain leakage.

d. Individual samples must be labeled with a submitter sample number corresponding to the DA 7539. Do not cover important information such as product codes, expiration dates, UPCs, etc.

e. Fresh dairy in quart, half gallon and gallon containers should be placed in the shipping carton upright. They are much less likely to leak than if container is laid on its side by the shipper during transit. Use caution not to crush them by placing too much weight (ice or gel packs) on top.

f. Refer to Paragraph 2.1 for additional guidance.

Remarks:

a. **Do not tape the tops of containers.**

b. Fluid/chilled dairy samples received **FROZEN** or above 4.4°C at the laboratory will not be tested. The temperature of the pilot sample must be between 0 °C and 4.4ºC.

Processed Dairy Products

(Powdered or canned milk, butter, UHT milk, yogurt, soft cheese)

Quantity:

Send at least 8 oz (226.8 grams) of sample.

Sample Selection and Shipping Instructions:

a. Send samples in their unopened original containers no larger than ½ gallon.

b. Products in containers larger than ½ gallon should be aseptically sampled.

c. Pilot Sample: If product is sold/stored chilled, then a like item is required. Pilot sample should be clearly labeled "Pilot" and described in block 9 of submission form DA 7539. Upon arrival to the lab, temperature must be between 0 °C and

4.4°C.

d. Enclose each sample container in a separate plastic bag to contain leakage.

e. Individual samples must be labeled with a submitter sample number corresponding to the DA 7539. Do not cover important information such as product codes, expiration dates, UPCs, etc.

f. Refer to Paragraph 2.1 for additional guidance.

Ice Cream/Frozen Yogurt/Sherbet

Quantity:

Send at least 8 oz (226.8 grams) of sample.

Sample Selection and Shipping Instructions:

a. Send samples in their unopened original containers no larger than one half gallon.

b. When submitting ice cream novelties, include the external retail package.

c. Products in containers larger than ½ gallon should be aseptically sampled.

d. Enclose each sample container in a separate plastic bag to contain leakage.

e. Individual samples must be labeled with a submitter sample number corresponding to the DA 7539. Do not cover important information such as product codes, expiration dates, UPCs, etc.

f. The product is sold/stored frozen, so ship with dry ice to maintain frozen state. **SHIP WITH DRY ICE ONLY*.**

g. Refer to Paragraph 2.1 for additional guidance.

Remarks:

a. Pilot Sample is not required for frozen items.

Cheeses

Quantity:

Send at least 8 oz. (226.8 grams) of sample.

Sample Selection and Shipping Instructions:

a. Send samples in their unopened original containers if less than one pound. Products in containers larger than one pound should be aseptically sampled.

b. Pilot Sample: If product is sold/stored chilled, then a like item is required. Pilot sample should be clearly labeled "Pilot" and described in block 9 of submission form DA 7539. Upon arrival to the lab, temperature must be between 0^{o}C and 4.4^{o}C.

c. Enclose each sample container in a separate plastic bag to contain leakage.

d. Individual samples must be labeled with a submitter sample number corresponding to the DA 7539. Do not cover important information such as product codes, expiration dates, UPCs, etc.

e. Refer to Paragraph 2.1 for additional guidance.

Eggs and Egg Products

Quantity:

Send at least 8 oz (226.8 grams) in the original container. If submitting raw shell eggs, send at least six units.

Sample Selection and Shipping Instructions:

a. Whole, raw eggs must be carefully wrapped and should be placed in a plastic container. Do not put in zip-lock type bags.

b. For chilled products, use caution not to crush them by placing too much refrigerant weight on top. Surround product with ice or gel packs.

c. Enclose each sample container in a separate plastic bag to contain leakage.

d. Pilot Sample: If product is sold/stored chilled, then a like item is required. Pilot sample should be clearly labeled "Pilot" and described in block 9 of submission form DA 7539. Frozen product must be shipped frozen. For powder products.

e. Refer to Paragraph 2.1 for additional guidance.

Powdered Infant Formula

Quantity:

Send three containers of the same lot number.

Sample Selection and Shipping Instructions:

a. Do not ship powdered formula in a shipment with chilled or frozen items. Ship at room temperature.

b. Enclose each sample container in a separate plastic bag to contain leakage.

c. Refer to Paragraph 2.1 for additional guidance.

Federal Supply Class

Food Category 8915

Fruits and Vegetable Products

Quantity:

Send at least 8 oz. (226.8 grams) of product. Processed products in larger containers (greater than one lb.) aseptically sampled portion in a sterile container. For product in cans or jars, send three containers of the same lot number.

Sample Selection and Shipping Instructions:

a. Pilot Sample: If product is sold/stored chilled, then a like item is required. Pilot sample should be clearly labeled “Pilot” and described in block 9 of submission form DA 7539. If item is sold/stored at room temperature, no pilot is necessary.

b. Enclose each sample container in a separate plastic bag to contain leakage.

c. Individual samples must be labeled with a submitter sample number corresponding to the DA 7539. Do not cover important information such as product codes, expiration dates, UPCs, etc.

d. Refer to Paragraph 2.1 for additional guidance.

Remarks:

a. Kimchee is part of this group.

b. The FADL does not routinely test cans unless they are submitted as a result of a customer complaint.

Federal Supply Class

Food Category 8940
Special Dietary Foods and Food Specialty Preparations

Ready-to-Eat Products
(Includes prepared salads and sandwiches)

Quantity:

Send at least 8 oz. (226.8 grams) in their original container. Products in larger container (greater than one lb.) aseptically sampled portion in a sterile container. For canned product submit 3 six to eight ounce containers if available. The FADL does not routinely test cans unless they are submitted as a result of a customer complaint.

Sample Selection and Shipping Instructions:

a. Please indicate in block 12 of the DA 7539 which category the samples fall under.

b. Place individual samples in plastic bags to contain leakage. When packing, use caution not to crush samples by placing too much refrigerant weight on top. Frozen product requires dry ice for refrigerant.

c. Pilot Sample: For chilled product, send one like item per shipping container to serve as a temperature pilot. Pilot sample should be clearly labeled “Pilot” and described in block 9 of the DA 7539. Receipt temperature of the pilot must be between 0°C and 7°C.

d. Refer to Paragraph 2.1 for additional guidance.

Ready-to-cook Products

Quantity:

Send at least 8 oz (226.8 grams) in their original container. Products in larger container (greater than 1 lb) aseptically sampled portion in a sterile container. For canned product submit six to eight ounces cans or smaller containers if available. The FADL does not routinely test cans unless they are submitted as a result of a customer complaint.

Sample Selection and Shipping Instructions:

a. Please indicate in block 12 of the DA 7539 which category the samples fall under.

b. Place individual samples in plastic bags to contain leakage. When packing, use caution not to crush samples by placing too much refrigerant weight on top. Frozen product requires dry ice for refrigerant.

c. Pilot Sample: For chilled product, send one like item per shipping container to serve as a temperature pilot. This container should be clearly labeled "Pilot" and described in block 9 of the DA 7539. Receipt temperature of the pilot must be between 0°C and 7°C.

d. Refer to Paragraph 2.1 for additional guidance.

Remarks:

a. Ready to Cook Products include pot pies, soups, stews, ravioli, pizza and vegetarian burgers. Aseptic and canned items are also parts of these two categories.

Federal Supply Class

Food Category 8960
Beverages, Non-Alcoholic

Bottled Water

Quantity:

Minimum quantities for finished product depend upon testing required: Submit in the original container.

Microbiological	1,000 mL (1 liter)
Chemical - Metals and Anions and Pesticides	1,000 mL (1 liter)

Sample Selection and Shipping Instructions:

a. Place individual samples in plastic bags to contain leakage. When packing, use caution not to crush samples.

b. Pilot Sample: Not needed

c. Refer to Paragraph 2.1 for additional guidance.

Other Water Samples

Quantity:

Minimum quantities depend upon testing required:

Microbiological (collected aseptically)	1,000 mL (1 liter)
Chemical - Metals and Anions and Pesticides	1,000 mL (1 liter)

Sample Selection and Shipping Instructions:

a. From other sources (well, spring, etc.), samples must be submitted in chemically cleaned bottles when submitting samples collected for trace metal or pesticide testing. Re-used bottles may contain high levels of soap, minerals, oils, etc. which can interfere with trace analysis. If needed, FADL can provide limited quantities of bottles upon request. Please provide several days notice when requesting bottles.

b. Place individual samples in plastic bags to contain leakage. When packing, use caution not to crush samples.

c. Pilot Sample: Not needed

d. Refer to Paragraph 2.1 for additional guidance.

Ice

Quantity:

a. CONUS: Send at least three pounds of ice. Ice in larger bags should be aseptically sampled.

b. OCONUS: Use Zip-lock type bags to collect ice samples. Allow the ice to melt then pour into bottles. Send two one liter bottles for each ice sample. Only fill the bottles 75-80% full.

Sample Selections and Shipping Instructions:

a. Ice can be shipped melted from overseas locations; if shipped frozen, ensure that sealed, watertight containers are used.

b. Do not allow bags of ice to come in contact with dry ice. Wrap the dry ice in several layers of newspaper and double bag the ice samples.

c. Samples for microbiological testing must be submitted in sterile containers.

d. Refer to Paragraph 2.1 for additional guidance.

Pilot Sample: Not required.

Other Non-Alcoholic Beverages and Juices

Quantity:

a. Samples due to customer complain sent at least 8 oz. Include any portion returned by the customer in a sealed container.

b. For routine destination monitoring send at least 8 oz of product in an unopened container

Sample Selection and Shipping Instructions:

a. Place individual samples in plastic bags to contain leakage. When packing, use caution not to crush samples.

b. Pilot Sample: For chilled product, send one like item per shipping container to serve as a temperature pilot. This container should be clearly labeled "Pilot" and described in block 9 of the DA 7539. Receipt temperature of the pilot must be between 0°C and 7°C.

c. Refer to Paragraph 2.1 for additional guidance.

Miscellaneous

Canned Items

Quantity:

For submissions such as customer complaints: 6 Cans or packages (3 normal and 3 abnormal). If samples are smaller than 4 oz, ship 12 (6 normal / 6 abnormal).

Sample Selection and Shipping Instructions:

a. Label cans or packages as "normal" or "abnormal". Indicate the date of pack or code date on the laboratory request.

b. Refer to Paragraph 2.1 for additional guidance.

Pilot Sample: Not required unless product is normally stored chilled.

Remarks:

a. The FADL does not routinely test can products, unless there is a concern based on a potential food borne illness, a customer complaint or apparent exterior can defect that needs to be evaluated. In these cases the Laboratory is able to determine:

1) Can integrity: evaluated using the Zyglo Leak Test

2) Interior enamel condition

3) Iron/Tin levels: determined using Inductive Coupled Plasma– Optical Emission Spectroscopy (ICP-OES)

4) Commercial sterility test

b. All pertinent inspection history associated with product being submitted MUST be provided.

Environmental-Swabs

Sample Selection and Shipping Instructions: (See chapter 3 of this guide for details)

a. Ship for overnight delivery since testing must be performed within 24 hours of sampling if results are to be valid.

b. Annotate on the DA Form 7539 the size of the surface area sampled and what piece of equipment was swabbed.

c. Do not allow the diluents in the swab tubes to spill or leak from the tube. The quantity in the tube is pre-measured and must remain in the tube for the test to be valid.
d. Temperature must be maintained between 0°C and 7ºC.

e. Pilot Sample: Use a blank swab tube with diluents or unused moistened sponge. Label as “Pilot” and described in block 9 of the submission form DA 7539.

Remarks: The preferred means to sample food contact surfaces for evaluation of cleanliness and sanitation is by the use of sterile sponges moistened with an

appropriate medium. This medium will neutralize any residual sanitizer which may be present and maintain viability of bacteria during shipment. Sponges used with aseptic technique have the advantage of covering a larger area than swabs and being able to cover irregular surfaces. There are no definitive guidelines. The sponge technique is used in industry for various specific bacteria such as Listeria spp. where the standard is zero tolerance. Analysis of sponges for total aerobic counts and coliforms can also be performed. Once a surface is aseptically sampled, the sponge must be inserted into a sterile, leak proof whirlpac bag and immediately placed on ice or gel packs to quickly chill the sponge. Careful aseptic techniques must be ensured throughout the procedure.

CHAPTER 3

ENVIRONMENTAL AND BIO-LUMINESENCE SAMPLES

3-1 Purpose

This chapter discusses environmental and bioluminescence swabbing and sample submission techniques.

3-2 Submission Procedures

a. Sample selection:

1) Public Health Command District submitting units are responsible for procuring environmental swabs for this program. One suggested source is 3M http://www.3m.com (1-800-328-1671) There are two types of swab required, one for APC/coliforms and the other for Listeria:

a) For APC and coliform testing – order REDISWAB 10 ml Neutralizing Buffer. (3M catalog number RS-960-10NB).

b) For Listeria testing – order REDISWAB 10ml DE/Neutralizing Broth. (3M catalog number RS-960-10-DE).

2) Each District will perform environmental swabbing at each commissary within their area of operation. Swabs will be taken at the commissary ready-to-eat (RTE) delis. The following three separate surface areas will be swabbed:

a) Mechanical equipment such as cutters, slicers, etc.

b) Product contact surface such as a processing counter surface.

c) One hand held utensil such as a knife, spoon, etc.

3) Swabs will be taken after cleaning and sanitizing, but prior to processing. Each surface area will be swabbed once for Aerobic Plate Count (APC) and coliforms using the swab from a tube of **Neutralizing buffer**. Then use a swab from a tube of DE/NEUTRALIZING BROTH to swab an adjacent area for Listeria. Use a separate swab for each surface and for each test (APC and coliforms versus Listeria).

4) If the personnel tasked for swabbing have access to a novaLum, swab another adjacent area with the novaLum swab. Repeat the process for the two remaining surface areas.

5) There should be a total of six swabs (nine if using the novaLum) when the task is complete.

6) Label the swab tubes with the description of the item swabbed and swab type (Listeria or APC/Coliforms).

7) Enter the size of the surface area sampled and the specific piece of equipment or surface tested on the sample submission form.

Note: It is recommended that the novaLum reading be entered in the disposition block of the sample number that corresponds with the APC/Coliform swab on the DA Form 7539, page 2, block 13. This will allow the submitting unit to compare their results with the DOD FADL results.

3-3 Swabbing Procedures

a. Large flat surfaces:

1) To sample equipment surfaces remove the sterile, pre-moistened swab from the tube, being careful not to touch any portion which might be inserted into the vial (aseptic technique). Press out excess solution against the interior of the vial while rotating the swab against the inside edge of the vial.

2) Hold the swab handle to make a 30° angle with the surface to be monitored. Rub the swab head slowly and thoroughly over approximately 50 cm^2 of surface three times, reversing direction between successive strokes. A path of 1 by 8 inches (2.5 cm by 20 cm) or 5 cm by 10 cm or other dimensions to cover an equivalent area. Sterile templates may be used. Return the swab head to the sterile solution vial, mix briefly in the solution, and press out the excess against the side of the tube.

b. Curved and Irregular Surfaces:

1) Utensils: In the examination of forks and knives the inner and outer tines of five forks and both sides of the blade of five knives are swabbed.

2) Moisten the swab with dilution fluid and run the swab slowly and firmly three times over the significant surfaces of the utensil, reversing direction each time. After swabbing each utensil, return swab to the buffer solution, mix briefly in the solution and press out the excess solution before swabbing the remaining utensils.

3) When the last of fifth utensil has been swabbed, return the swab to the vial and close the lid tightly.

4) When unmeasured surface areas such as grinder screws or plates are swabbed, the results should be interpreted as the total for the entire sampling site instead of a measured area.

c. Sensitivity of Method: Swabbing can be an effective tool for monitoring and measuring equipment sanitation. The significance given to the bacterial swab test is only as important as the interpretation of the user's objectives and results. The APC and coliform counts can be used as a measure of the effectiveness of cleaning and sanitation procedures for processing equipment. When available, using the bioluminescence novaLum to get readings and comparing results with the APC and coliform counts will demonstrate the degree of correlation. Bioluminescence readings should have a fairly high correlation with the APC and coliform counts. If there is consistently poor correlation, determine if the bioluminescence instrument is damaged or needs calibration or if personnel require more training with the instrument, etc.

3-4 Shipping

a. After sampling, the swabs must be shipped CHILLED to the laboratory on wet ice or frozen gel packs. In order to ensure valid results do not freeze:

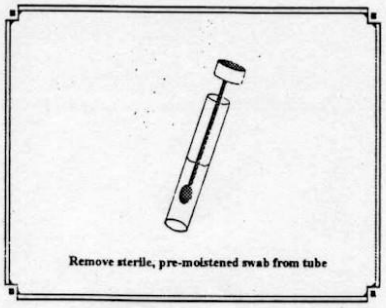
1) Testing must begin within 24 hours of sampling; therefore, the swabs must be shipped to the laboratory on the same day of sampling.

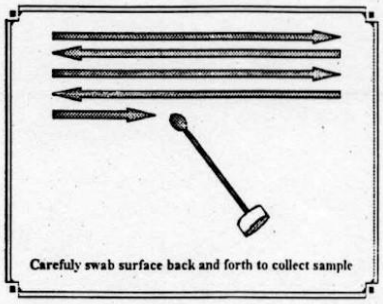
2) Ship for overnight delivery.

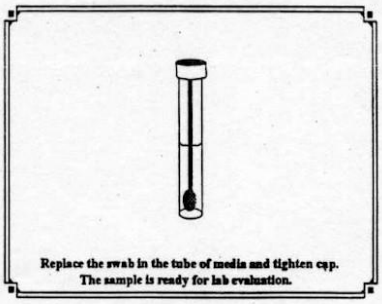
3) Maintain temperature at 0°C to 4.4°C during transit.

4) Include an unopened swab tube as a temperature pilot. Label the tube “Pilot”.

RediSwab ™
Instructions for Use

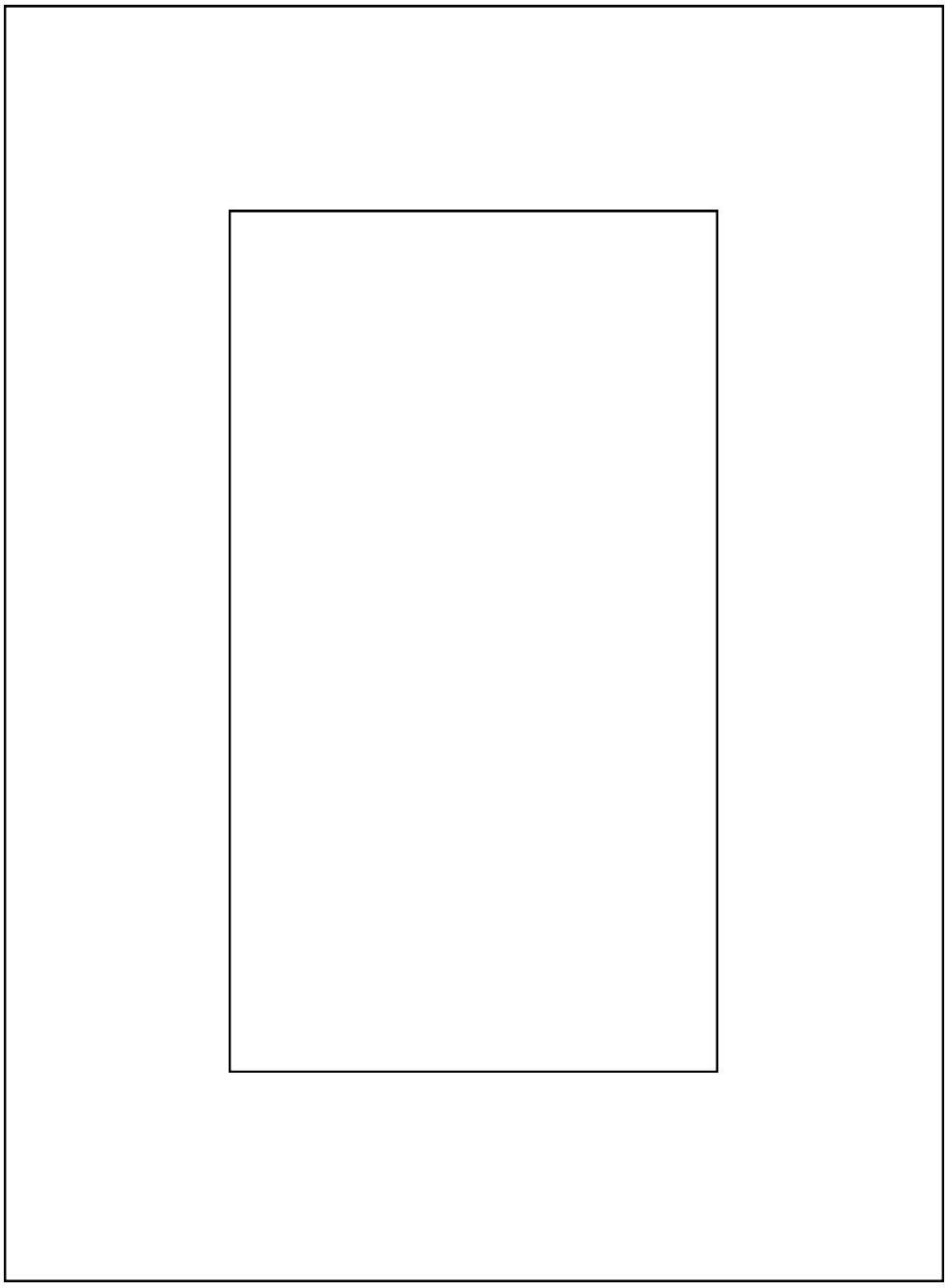






International BioProducts, P.O. Box 2728, Redmond, WA 98073 USA (800)729-7611 In Canada (800) 745-6880

SWAB TEMPLATE



CHAPTER 4

FOODBORNE ILLNESS SUSPECT SAMPLES

4-1 Purpose

A foodborne illness is an infection or intoxication caused by a bacterial, viral, parasitic, or chemical agent transmitted by a food. This definition primarily includes outbreaks (two or more cases from a common source), but data on single cases of enteric pathogens (*Salmonella* spp., *Campylobactor* spp., and *E. coli* O157:H7), which are primarily foodborne, are also included.

This chapter provides guidance for submitting foodborne illness suspect samples for laboratory testing. The only laboratory that is authorized to perform official testing of foodborne illness suspect samples is the DOD FADL at Fort Sam Houston, TX.

4-2 Procedures

a. Foodborne illness suspect sample submission MUST be coordinated with the local command Preventive Medicine unit. The FADL microbiology section WILL BE CONTACTED TELEPHONICALLY prior to shipping any suspected food poisoning/foodborne illness samples. The laboratory will provide instructions on shipping the food samples, such as shipping chilled or frozen.

b. All requests for food poisoning/foodborne illness testing will be submitted on a DA Form 7539 **and will include a completed Chain of Custody- DA Form 4137** (completion details are in chapter five of this guide).

c. Submit food which is EPIDEMIOLOGICALLY implicated (i.e., samples of actual food eaten, if available). Also, if available, submit samples of the implicated food items that were not prepared/served (same brand/lot number, etc. as the implicated items consumed). The specific laboratory tests and the order in which they are conducted will be determined by the clinical signs, symptoms, the incubation period and other pertinent facts.

d. All samples submitted in conjunction with a foodborne illness may be included on a single form: however, applicable producer or manufacturer information will be provided as a separate attachment and sent with the samples.

4-3 SUSPECTED INCIDENTS OF INTENTIONAL CONTAMINATION

a. The following personal protective measures will be used by inspectors as they encounter suspected incidents of intentional product contamination:

1) Take immediate action while remaining calm and using a reasonable common sense approach. Immediately alert the facility manager, the chain of command and/or Hazardous Material (HAZMAT) personnel as outlined in local SOPs.

2) Do not open product package or master container. Inspectors will not taste, touch, smell, empty, shake or transport the suspected product. This will eliminate the possibility of needless exposure and unintentional spread.

3) Leave the room, close the door, if applicable, and secure the area to prevent access until investigating officials arrive at the scene.

4) Wash hands with soap and water to prevent the potential spread of any contaminant that may have been present. The most effective hand washing process is to repeatedly lather and rinse hands as opposed to spending the same amount of time scrubbing with a single lathering. After hands have been cleansed thoroughly and rinsed free of soap, apply a hand sanitizer. Shower with soap and water as soon as possible. Do not use bleach or other disinfectant that may be harmful to the skin. Place clothes in a plastic bag or other sealable container prior to showering. The sealed clothing should be given to the emergency responders for proper handling.

5) List all personnel who were in the area when the suspicious item was received. This information may be needed by authorities.

6) Formally report the incident and possibility of exposure through the chain of command to include commissary directors, TISA managers, and/or other appropriate management personnel.

7) If there is question of room or air handling system contamination through the spread of aerosol, use the following guidelines:

a) Turn off room fans or ventilation units in the area, or have them turned off, if possible. Shut down air handling system for entire building, if possible. This will need to be coordinated with the building security manager.

b) Leave the area, close the door, and secure the area.

c) List all personnel who were in the area when the suspicious item was received. This information may be useful to authorities.

d) Report all incidents through your chain of command.

4-4 Information and Samples Required

a. Food attack rates for each food eaten or suspect meal(s):

1) Total number of people who consumed the suspect meal(s) or food.

2) Number of people who consumed the suspect meal(s) or food and became ill.

3) Number of people who consumed the suspect meal(s) or food and did not become ill.

Note: Foods eaten up to 72 hours prior to symptoms should be considered.

4) Predominant symptoms, such as nausea, vomiting, diarrhea, fever, chills, headache, and dizziness.

5) Incubation period: time from ingestion to appearance of symptoms.

6) Duration of symptoms.

7) Physician's diagnosis and any medical treatment given.

8) Laboratory results of clinical specimen cultures, i.e. stool and/or vomits.

9) Reports of any suspected food mishandling.

b. Ship suspected samples (bulk foods, food in open containers, and clinical specimens) in separate sterile containers. Submit a minimum of 100 grams of each sample or entire specimen if less than 100 grams. Submit food sample swabs (Culturettes^{R}) in transport growth medium.

c. For operational rations, such as MREs and UGRs, etc: Submit any leftover suspected components and six unopened components of the same meal and sub-lot.

PATHOGENIC MICROBIOLOGICAL ACTION LEVELS FOR READY-TO- EAT FOODS

ORGANISM/TOXIN	**ACTION LEVEL**
Bacillus cereus	1,000 CFU/g or mL
Bacillus cereus Diarrheal or Emetic Toxin	Zero Tolerance
Campylobacter jejuni	Zero Tolerance
Clostridium botulinum (Spores or Vegetative Cells)	Zero Tolerance
Clostridium botulinum Neurotoxin	Zero Tolerance
Clostridium perfringens	1,000 CFU/g or mL
Enterohemorrhagic Escherichia coli (EHEC) O157:H7	Zero Tolerance
Listeria monocytogenes	Zero Tolerance
Salmonella species	Zero Tolerance
Shigella species	Zero Tolerance
Staphylococcus aureus	1,000 CFU/g or mL
Staphylococcal Enterotoxin	Zero Tolerance
Vibrio cholera (Serogroups O1 and Non-O1)	Zero Tolerance
Vibrio parahaemolyticus	1,000 CFU/g or mL
Vibrio vulnificus	Zero Tolerance
Yersinia enterocolitica	Zero Tolerance

CHAPTER 5

SAMPLE COLLECTION CHAIN OF CUSTODY

5-1 Purpose

This chapter establishes a procedure that provides accountability and documentation of sample integrity from the time at collection of the sample until delivery at the laboratory.

5-2 Procedure

a. A Chain of Custody is required and applies only to food samples that are collected due to suspicion of intentional contamination; collected as part of a criminal investigation; associated with an initial or directed routine audit; unopened containers associated with a foodborne illness investigation or foreign material determination; or for samples analyzed in accordance with a contract that specifies that testing must be completed at the Department of Defense Food Analysis and Diagnostic Laboratory.

b. A sample is in "custody" if all three of the following apply:

   1) The sample is in one's actual physical possession or within line of sight.

   2) The sample is kept in a secured area, restricted to authorized personnel only.

   3) The sample is inside a sealed tamper-evident container.

c. Procedures for sample handling must be followed whenever samples are collected, stored, or transferred. An accurate written record used to trace the possession and handling of samples from the moment of collection through disposal is required. The procedures defined here represent a means to establish a reasonable probability that:

   1) The Chain-of-Custody (COC) record is defensible if the necessity arises.

   2) The collected sample is identified to ensure it is the same sample that is analyzed at the laboratory.

   3) The sample is handled to ensure it is not altered, changed, or otherwise compromised from collection to analysis at the laboratory.

5-3 Process for Sample Collection and Transfer to the Laboratory

a. The sample collector is responsible for assuring that proper chain-of-custody requirements are met during collection of food and water samples.

b. All products, including intact cans or jars, should be placed in separate tamper-evident plastic bags. The bags will be sealed and signed. Samples that are too large to fit in a tamper-evident bag (such as large jars/cans) should be sealed with tamper-evident tape at the juncture of the lid and container. For container types such as bagged salads, sandwiches, milk cartons, etc, place the tamper-evident seal at the point where the product container would normally be opened, so that any tampering with the container would be evident. Tamper-evident seals should tear or show evidence of tampering if removed from the container.

c. Samples will be collected within sight of a representative from the facility where the sample is being taken, i.e. dining facility manager, quality assurance manager of a commercial establishment, military police, etc.

d. A completed DA Form 7539, Request for Veterinary Laboratory Testing and Food Sample Record form must be included with the sample. See chapter six of this pamphlet for form completion guidance.

e. When transferring "possession" of the sample container to the next party, the sample collector will sign and record the date of transfer in the "Chain of Custody" section of the DA Form 4137. There will be one form completed for each sample transportation container. The original chain of custody form(s) must be forwarded with the sample container to the laboratory. The most current version of the DA Form 4137 can be found at: http://armypubs.army.mil/eforms/pdf/A4137.PDF

f. Unless hand carried or sent by registered mail, transportation containers must be shipped to the laboratory via common carrier, i.e. UPS or FedEx. Common carriers should abide by Department of Transportation regulations governing shipment of chain-of-custody samples. Once the container(s) arrives at the laboratory, the chain-of-custody form is relinquished to the laboratory. Upon receipt of a chain-of-custody sample, laboratory receiving personnel will sign the "received by" portion of the chain-of-custody document and will inspect for evidence of tampering during transit. Observed deficiencies, or custody lapses, will be annotated on the Chain of Custody form.

Sample of Completed DA Form 4137

EVIDENCE/PROPERTY CUSTODY DOCUMENT

For use of this form see AR 190-45 and AR 195-5; the proponent agency is US Army Criminal Investigation Command

MPR/CID SEQUENCE NUMBER

CRD REPORT/CID ROI NUMBER

RECEIVING ACTIVITY	LOCATION
Fort McClellan Food Inspection Branch	Fort McClellan, AL 36205-5000
NAME, GRADE AND TITLE OF PERSON FROM WHOM RECEIVED ☒ OWNER James Smith, Quality Assurance Director ☐ OTHER Alpha Meat Company	ADDRESS *(Include Zip Code)* N/A

LOCATION FROM WHERE OBTAINED	REASON OBTAINED	TIME/DATE OBTAINED
Alpha Meat Company (Processing Floor) 123 Alpha Avenue Birmingham, AL 36222	Special Audit Sampling	1700-1830 25 Oct 06

ITEM NO.	QUANTITY	DESCRIPTION OF ARTICLES *(Include model, serial number, condition and unusual marks or scratches)*
1	1	Smokey Joe's Sausage Links, 1LB Package, Lot #6298, DOP 25 Oct 06, Lab Sample #BR649
2	1	Alpha Meat Smoked Turkey Legs, 1 Bag - vacuum packed, 4 ea, 28oz, Lot #6927, Exp Date 15 Nov 06, Lab Sample #BR650
3	1	AlphaZulu Sausage Chubs, 1-16oz Chub, Lot #6298-A, DOP 25 Oct 06, Lab Sample #BR651

CHAIN OF CUSTODY

ITEM NO.	DATE	RELEASED BY	RECEIVED BY	PURPOSE OF CHANGE OF CUSTODY
1-3	25 Oct 06	SIGNATURE NAME, GRADE OR TITLE: James Smith, QA Director	SIGNATURE NAME, GRADE OR TITLE: Mark Johnson, CPT, VC	Receipt of Special Audit samples at conclusion of audit.
1-3	25 Oct 06	SIGNATURE NAME, GRADE OR TITLE: Mark Johnson, CPT, VC	SIGNATURE NAME, GRADE OR TITLE: John Doe, FedEx	Mailing samples to FADL at Fort Sam Houston, TX for testing. "SCRNI"(Sealed container received contents not inventoried)
1-3	26 Oct 06	SIGNATURE NAME, GRADE OR TITLE: Silly Billy, FedEx	SIGNATURE NAME, GRADE OR TITLE: Jim Follows, FADL Technician	Samples received at the FADL for testing.
1-3	26 Oct 06	SIGNATURE NAME, GRADE OR TITLE: Jim Follows, FADL Technician	SIGNATURE NAME, GRADE OR TITLE: Michael Mann, FADL Micro Tech	Conduct sample testing.
		SIGNATURE NAME, GRADE OR TITLE	SIGNATURE NAME, GRADE OR TITLE	

DA FORM 4137, 1 JUL 1976 Replaces DA FORM 4137, 1 Aug 74 and DA FORM 4137-R Privacy Act Statement 26 Sep 75 Which are Obsolete

LOCATION _____

DOCUMENT NUMBER _____

APD PE v1.00

CHAPTER 6

SAMPLE FORMS AND DOCUMENT COMPLETION

6-1 Purpose

This chapter provides guidance for proper completion of DA Form 7539, Request for Veterinary Laboratory Testing and Food Sample Record for laboratory sample submission.

6-2 Procedure

a. A separate DA Form 7539 must be completed for each different commercial source or government facility that originally produced, or subsequently processed the sample, i.e. each different manufacturer, packer, etc. When submitting more than six samples, use additional copies of page 2 as necessary.

b. The only exception to this is when samples are submitted in association with a suspected foodborne illness.

6-3 Block-by-block Instructions for Completing DA Form 7539

NOTE: Pull down menus apply to those completing this form in the Laboratory Submission database in Lotus Notes. When filling in the form in other ways, enter the required information by typing or printing the appropriate data.

Completing Page One of the Form:

Block 1: Complete name and address of the submitting unit. Select location from the pull down menu. The Inspection Responsibility Code (IRC) will fill in automatically.

Block 2: Enter the name, rank, telephone number and **email address for a point of contact**. The point of contact will be the individual that the laboratory can directly contact if additional information about the samples submitted is required. The Station Identification Number will fill in automatically upon completing block one.

Block 3: Enter a control number following the guidance established by local policy. A control number will be assigned to each form, and a log of the forms will be maintained in order to ensure sample and form accountability.

Block 4: Select the appropriate laboratory to which samples are being submitted.

Block 5: Provide a complete company name, address, and telephone number for the company that produced, or further processed the sample. Use the following guidance when determining the producer or manufacturer and when expressing the company name, address, and plant code.

Determining Producer/Manufacturer:

Examples:

Potato salad produced in bulk 5-pound containers by the ABC Salad Company and shipped to the commissary. If the inspector opens the new five pound container and aseptically obtains a sample, then the ABC Salad Company would be listed as the producer, and the processing plant's information would be entered.

If the potato salad sample is collected from an open container that the deli workers have already opened and used to repack for sale, then the commissary would be listed as the producer/manufacturer since they repacked the item.

If a meat market obtains ground beef in 5-pound chubs from the packing plant and a sample is taken directly from the chub, then the company that packed the product into the chub would be listed as the producer/manufacturer. If the product has been reground by meat market personnel, then the commissary would be listed as the producer/manufacturer.

A sandwich or cheeseburger that is prepared by the operator of a snack bar at the bowling alley or at the AAFES Burger King would be shown as the installation facility, i.e. "Bowling Alley Snack Bar," or "AAFES Burger King" as the manufacturer regardless of where the final product ingredients originated.

Expressing Producer/Manufacturer Name, Address, and Plant Code:

For items produced at establishments in the United States, provide the name, address (street, city, state, and zip code), and telephone number for the **origin** production plant. Include any plant codes found on the product or packing case (IMSL, USDA, etc) in the next section of the block. If the supplier is listed in the Directory of Approved Sources, include the VC number that is assigned to the supplier.

NOTE: Use caution when providing addresses from plant labels. In many cases, the address listed may be for a corporate office and not for the actual plant in which the product was processed. It is wise to check the product master container (shipping case) in order to compare the address on the case to the address on the package. If the addresses are different, ensure that the address for the processing plant, not the corporate office, is entered on the form.

For items produced at foreign establishments, provide the name of the country and processing plant address in which the sample was produced. If the name and address of the plant is not available, indicate so and then enter the name and address of the sample importer, exporter, or distributor.

For items produced on a military installation, enter the name, address, and telephone number for the particular establishment that produced the sample. For example, "AAFES Anthony's Pizza, 401 Star Road, Aberdeen Proving Grounds, MD".

Block 6: Enter the reason that the samples are being submitted for testing using the pull down menu.

Block 7: Enter the type of facility from which the sample was pulled using the pull down menu. When "other" is selected, a full explanation will be entered in Block 12.

Block 8: Enter the date that the sample was collected using the pull down menu.

Block 9: Enter the condition in which the sample was shipped using the pull down menu. When a pilot is included (for chilled items only) enter a description of the pilot sample.

Block 10: This block is left blank.

Block 11: This block is left blank.

Block 12: Use this block to provide any relevant information that does not appear elsewhere on the form. When a sample is being submitted in conjunction with a foodborne illness investigation, contact the laboratory for specific guidance prior to submission. Use this block to indicate any specialized or specific testing required on the samples. Select "Yes" from the pull down menu that appears immediately below the remarks section only after the samples have actually been shipped.

Completing Page Two of the Form: In Lotus Notes, select "New Lab Sample" tab at the top of the page. Repeat for each additional sample.

Block 13: Enter relevant, complete information for each sample pulled:

Submitter Sample Number: Enter sample number, beginning with number 1, in this area according to local SOP

Sample Description: Enter complete product description, to include common name, type, and classification. For example, "milk, chocolate, 2%," "yogurt, lowfat, cherry," "apple, red delicious," or "ground beef, 85% lean."

Brand Name: Enter the specific product brand as applicable. For example: "Hormel," "Carl Buddig," "Sunkist," or "Prairie Farms."

Universal Product Code (UPC): Enter the Universal Product Code found on the product label, or produce shelf tag. This code is also known as the "bar code." It is the label scanned or entered by the cashier at the register when scanning the product for sale.

Product Code: Enter any lot number, "use by" or expiration date, and other lot code information exactly as it appears on the product label/container.

NOTE: The next three entries are related to each other. See the example that follows.

Sample Weight/Volume: Enter the weight or volume of one item as it appears on the product label or package.

Quantity Submitted: Enter the number of individual items submitted as this one sample.

Unit of Issue: Enter the unit of issue or sale. The unit of issue is determined by how it is charged upon being issued or sold. For example, "pound"," bag", "jar", "can" or "box."

Example: Two 3.5 oz sandwiches submitted as one sample should show a sample weight of "3.5", quantity submitted as "2" and unit of issue as "each".

Total Cost: This block is left blank.

Disposition: This block is left blank.

6-4 Cautionary Notes

a. It is important to use a separate DA Form 7539 for each origin plant or government production site. This ensures that result reports contain information that is unique to each specific source and that the laboratory can track all samples that may require medical hold actions, market withdrawals, or recalls. When submitting more than six samples from the same producer or manufacturer, use as many additional copies of page 2 as necessary.

b. Do not complete the gray section on page one marked "For Laboratory Use Only." The lab will complete the information in this section. When the inspector has the tracking number available; it can be entered in block 12.

c. Do not enter information in the "Results" portion at the bottom of page one. This section is for the laboratory to attach completed laboratory result reports.

Sample of Completed DA Form 7539, page 1 of 2

REQUEST FOR VETERINARY LABORATORY TESTING & FOOD SAMPLE RECORD
For use of this form see AR 40-657; the proponent agency is OTSG.

1. FROM Ft Sam Houston Branch ATTN MCVS GPT-F 2332 Harney Road Bldg 2635 Fort Sam Houston, TX 78234-1303 IRC: 1323	2. POINT OF CONTACT: Name: SFC Joe Snuffy Phone: 210-295-0000 Station Identification Number: 1311-00	3. CONTROL NUMBER: 4. TO: VETCOM FADL
5. PRODUCER/MANUFACTURER Name and Address: Moo Cow Dairy 7554 U.S. Highway 49 Hattiesburg MS, 39402 Phone: (601) 268 2584		Plant code (IMSL, USDA, etc.) Plant # 28-1804 (IMLS) (VC #)
6. REASON FOR SUBMISSION: Destination monitoring program		
7. SAMPLES SELECTED FROM: DeCA	8. DATE SAMPLE(S) SELECTED: 10/16/2006 thru 10/16/2006 9. SHIPMENT TEMPERATURE CONDITIONS: Chilled - include 1 temp pilot per shipping container; describe below Pilot Description: 2% Milk, half gallon	
10. INSPECTOR'S SIGNATURE		11. ACCOUNTABLE OFFICER'S SIGNATURE
12. REMARKS (use additional paper if necessary) Date of Pasteurization is 13 October 2006		
Samples Submitted to the Lab for Testing (Yes/No): Yes		
FOR LABORATORY USE ONLY		
SHIPPING CARRIER TRACKING #:	LABORATORY REPORT NUMBER	RECEIVED:
RECEIPT TEMPERATURE:	SAMPLE(S) FOR ANALYSIS BY: ☐ Chemistry ☐ Microbiology ☐ Other	

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Completed Results Attached: No
Results:

Sample of Completed DA Form 7539, page 2 of 2

13. SAMPLE INFORMATION (Complete as much information as is available) LAB Report Number:			
SAMPLE NUMBER 1	FOR LABORATORY USE ONLY		
Submitter Sample No. 1	Sample Description Milk, 2%		Brand Name Moo Cow
Universal Product Code (UPC) 96966 51300	Product Code OCT 28 J 07:07 28-1804		Sample Weight/Volume Half Gallon
Quantity Submitted 1	Unit of Issue Each	Total Cost	Disposition
SAMPLE NUMBER 2	FOR LABORATORY USE ONLY		
Submitter Sample No.	Sample Description		Brand Name
Universal Product Code (UPC)	Product Code		Sample Weight/Volume
Quantity Submitted	Unit of Issue	Total Cost	Disposition
SAMPLE NUMBER 3	FOR LABORATORY USE ONLY		
Submitter Sample No.	Sample Description		Brand Name
Universal Product Code (UPC)	Product Code		Sample Weight/Volume
Quantity Submitted	Unit of Issue	Total Cost	Disposition
SAMPLE NUMBER 4	FOR LABORATORY USE ONLY		
Submitter Sample No.	Sample Description		Brand Name
Universal Product Code (UPC)	Product Code		Sample Weight/Volume
Quantity Submitted	Unit of Issue	Total Cost	Disposition
SAMPLE NUMBER 5	FOR LABORATORY USE ONLY		
Submitter Sample No.	Sample Description		Brand Name
Universal Product Code (UPC)	Product Code		Sample Weight/Volume
Quantity Submitted	Unit of Issue	Total Cost	Disposition
SAMPLE NUMBER 6	FOR LABORATORY USE ONLY		
Submitter Sample No.	Sample Description		Brand Name
Universal Product Code (UPC)	Product Code		Sample Weight/Volume
Quantity Submitted	Unit of Issue	Total Cost	Disposition

For additional samples, use additional copies of Page 2.

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CHAPTER 7

ANIMAL DIAGNOSTIC SPECIMEN SUBMISSION GUIDANCE

7-1 Purpose

This chapter provides guidance for animal specimen submission for diagnostic testing.

7-2 Specimens for Rabies Diagnosis

a. Materials

1) Insulated Styrofoam shipping container with a cardboard box exterior, which is in excellent condition. Do not use boxes that are worn, torn, or water marked.

2) Plastic mailing tape, address labels, UN3373 “Biological Substance, Category B” label, Rabies Submission Form (Vet Lab Form D-102), two heavy plastic bags (zip-lock), gel packs, and packing material such as newspaper.

b. Collection

1) Wild or stray animals that bite a human or other animal must always be euthanized immediately and its head sent to the laboratory for examination. The entire carcass of small animals such as bats should be sent to the laboratory.

2) Animal head or small carcass must be fresh. If brain tissue is decomposed or rotten then analysis may be inconclusive.

3) Caged rodent pets (hamsters, gerbils, guinea pigs, mice) should not be submitted for rabies testing.

c. Packaging and Shipping Biological Substances, Category B

1) The packaging and shipping of rabies specimens to the laboratory for diagnostic testing was developed to comply with the recently revised regulations in 49 CFR parts 171 to 173. The new proper shipping term is “Biological Substance, Category B”. The diamond-shaped “UN-3373” label must be on the shipping box.

2) Place specimen in a primary heavy plastic bag, seal it and then place in a second heavy plastic bag and seal it.

3) Pack specimen in an insulated shipping container with packing material to fill the container, and with sufficient gel packs to maintain the specimen cold until it arrives at the laboratory. It is imperative that no liquid leak from the shipping container during shipment. Dry ice is not to be used as a refrigerant per warnings from the Commercial Airline Carriers Assoc.

4) Ship by overnight or next day delivery utilizing Federal Express, DHL or UPS. DO NOT use the US Postal system because they do not deliver directly to the laboratory.

5) Complete the submitter's section of the Rabies Submission Form D-102. Place the form in an envelope or plastic bag and affix it to the Styrofoam lid between the inner and outer containers.

6) Animal heads for diagnosis of rabies infection are considered "Biological Substance, Category B" for transportation purposes by Title 49 CFR 171.134.

7) If shipping a specimen from outside CONUS, please contact the laboratory by calling 210-295-4604, FAX 210-295-4612 or email to rabies.favn@amedd.army.mil with the shipping information so we can assist in tracking the shipment.

7-3 Serum for Serological Testing

a. Submit samples with appropriate test request form:

1) MWD Banked Annual Serum Submission , Form D-127

2) MWD Serology Test Request, Form D-128

3) TSA Dog Serology Test Request, Form D-128

4) MWD Lackland Test Request, Form D-128LAFB

b. Collect blood samples in a serum separation or red top tube, allow blood to clot, spin down and transfer serum to polypropylene screw-cap vial or tube.

c. Label each serum tube with the animal's identification data. Data on the tubes should correspond with the data on the laboratory test request form. Ensure the form includes complete return address, telephone number and email address.

d. Shipment

1) Ship as chilled specimens the same day collected or freeze sera for later shipment.

2) Pack serum tubes to prevent breakage; wrap in paper towels, bubble wrap, etc., and then place in a plastic zip-lock bag. Place in an insulated shipping container with sufficient frozen gel pack refrigerant to keep the samples cold during transit. Sera must be shipped in watertight primary and secondary containers. If the specimens are shipped overnight or next day delivery then refrigerants or gel packs are not required.

3) Ship samples by a carrier that will deliver them within 24-72 hours using Federal Express, UPS or DHL. USPS does NOT deliver to the laboratory.

7-4 Serum for OIE-FAVN assay

a. Submit sample using the "Request for OIE-FAVN Rabies Antibody Test", Form D-132A for privately owned animals with DOD beneficiary status. A veterinarian's original signature is required, not stamped or electronically created because the quarantine stations will reject the application.

b. Submit approximately 0.5 to 1.0 ml of clear serum, in an unbreakable tube or cryovial and place in a Ziploc bag. Place form and payment in separate Ziploc bags to prevent water damage.

c. Pack serum tubes to prevent breakage; wrap in paper towels, bubble wrap, etc., and then place in a plastic Ziploc bag. Place in an insulated shipping container with enough frozen gel pack refrigerant to keep the samples cold during transit. Sera must be shipped in watertight primary and secondary containers. If the specimens are shipped for overnight or next day delivery then refrigerants or gel packs are not required.

d. Use next-day delivery services such as Federal Express, UPS or DHL. The US Postal service does NOT deliver to the lab. If shipping from overseas, use the fastest mailing service possible. A copy of the CDC import permit will facilitate clearance through US Customs.

7-5 Equine infectious Anemia (EIA)

a. Only government-owned horses and privately-owned horses maintained on military installations are eligible for testing.

b. Submit serum specimen with completed Equine Infectious Anemia Laboratory Test USDA Forms VS 10-11 (2003) or latest version. Forms are available from

Area VIC regional offices of USDA, APHIS. When testing is completed, the laboratory will distribute the copies to the appropriate recipients, to include Part 4-Area Veterinarian In Charge (pink copy) and Part 5-State Veterinarian (yellow copy).

c. The laboratory is a participant with GlobalVetLink (GVL) which offers electronic EIA reporting services to the veterinarian for a fee. We encourage the VTFs to subscribe with GVL to expedite the testing process when dealing with government or privately owned horses. The benefits greatly outweigh the expense.

7-6 Wildlife Disease Surveys

a. Serological testing in support of wildlife disease surveys requires a current protocol signed by the MACOM and the Director, DOD Veterinary Laboratory.

b. Contact the laboratory regarding the appropriate test request form.

c. Routine wildlife disease surveys are performed as workload permits.

7-7 Specimens for Isolation of Leptospira

a. Media and specific directions/instructions will be provided upon request and can normally be delivered within 24-48 hours from the Fort Sam Houston Laboratory.

b. Collect blood specimens for culture in vacutainer tubes containing potassium oxalate (gray top tube) or sodium heparin (green top tube) anticoagulant. Culture blood specimens the same day.

c. Collect urine aseptically and inoculate aliquots into EMJH media within 1 hour for successful isolation. Unfortunately urine is toxic to leptospires.

d. Incubate inoculated tubes at 28-30º C or room temperature until shipped.

e. Pack the tubes to prevent breakage and ship in an insulated shipping container. Do not use any refrigerant because the leptospires do not tolerate cold conditions and may not survive the transit.

7-8 Diagnostic Test List

AGENT/DISEASE	METHOD	SPECIMEN	QTY.
Anaplasmosis (*Anaplasma phagocytophilium*)	IFA	Canine serum	0.5-1 ml
Babesia canis	IFA	Canine serum	0.5-1 ml
Babesia gibsoni	IFA	Canine serum	0.5-1 ml
Brucella canis	Slide agglutination	Canine serum	0.5-1 ml
Brucella abortus	Card/Slide/Tube agglutination	Serum	0.5-1ml
Chagas Disease (*Trypanosoma cruzi*)	IFA	Canine serum	0.5-1 ml
Ehrlichia canis	IFA	Canine serum	0.5-1 ml
Equine infectious anemia	SA-ELISA	Equine serum	0.5-1 ml
Heartworm (*Dirofiliara immitis*)	ELISA	Canine serum	0.5-1 ml
Leishmania	IFA - *Leishmania donovani* complex (Sligo strain Fox Hound, DD-8 Kala-Azar strain)	Canine serum	0.5-1 ml
Leptospirosis (*Leptospira interrogans*)	Culture/Isolation IHA – human screen ELISA (PanBio) - human screen MAT (Microscopic Slide Agglut Test)	Fresh urine < 2 hour Blood Serum	10-100 ml 0.5-2 ml 0.5-1 ml
Lyme Disease (*Borrelia burgdorferi*)	IFA Canine Western Blot confirmation (Immunetics)	Canine serum	0.5-1 ml
Q Fever (*Coxiella burnetii*)	IFA (Phase 1, 2 antigen)	Canine serum	0.5-1 ml
Rabies antibody	RFFIT-Rapid Fluorescent Focus Inhibition Test FAVN – Fluorescent Antibody Viral Neutralization Test	Human serum Canine, feline serum (Pet Travel)	0.5-1 ml
Rabies Virus Detection Rabies Virus Confirmation	Direct FA Mouse Neuroblastoma Cell Culture	Brain tissue 10% Brain suspension	Fresh
Rocky Mt. Spotted Fever Group (*Rickettsia rickettsi*)	IFA	Canine serum	0.5-1 ml
AGENT/DISEASE	METHOD	SPECIMEN	QTY.
Typhus Fever Group (*Rickettsia typhi*)	IFA	Canine serum	0.5-1 ml
Exportation Certification	Hawaii, Guam, New Zealand, Australia, England, Sweden, Japan etc…	Canine, feline serum	0.5-1 ml
Other tests not listed	Referral Service	Call for information	

APPENDIX A

REFERENCES

Section I

Publications

a. AR 40-657/NAVSUPINST 4355.4c/AFRT 163-2/MCO P10110310, Veterinary/Medical Food inspection and Laboratory Service

b. AR 195-5, Evidence Procedures

c. MEDCOM Reg 40-28, U.S. Army Veterinary Command Policies and Procedures

d. 49 CFR parts 171 to 173.

e. Federal Supply Catalog

Section II

Referenced Forms

a. DA Form 4137, Evidence/Property Custody Document.

b. DA Form 7539, Request for Veterinary Laboratory Testing & Food Sample Record.

c. Vet Lab Form D-102 Rabies Submission.

d. FADL Form D-127 MWD Banked Annual Blood and Serum Submission Form

e. FADL Form D-128LAFB MWD Lackland Test Request.

f. FADL Form D-128 MWD Serology Test Request.

g. FADL Form D-128TSA TSA Dog Serology Test Request.

h. FADL Form D-132A Request for FAVN-OIE Rabies Antibody Test.

i. USDA Forms VS 10-11 Equine Infectious Anemia Laboratory Test

APPENDIX B

PHOTOS OF SAMPLES RECEIVED IN NON-TESTABLE CONDITION

The sender of this sample did not fill the 'dead space' in the container. Use 'dunnage' such as crumpled newspaper or cardboard to fill voids. Do not use Styrofoam peanuts or shredded paper. Use bubble wrap and air pillows only on top.

The sender of this sample put the test sample and the pilot sample in completely different Styrofoam containers. This is incorrect. Place pilot in the same insulated container with the sample.

The sender of this sample placed the samples (in plastic bags) inside separate cardboard boxes. The ice packs were also placed beneath the cardboard boxes. The correct shipping temperature for the samples was not maintained due to the separation of the cold packs from the samples.

GLOSSARY

Section I - Abbreviations

AAFES: Army and Air Force Exchange Service

BPA: Blanket Purchase Agreement

CONUS: Continental United States

DeCA: Defense Commissary Agency

DOD: Department of Defense

MRE: Meals, Ready-to-Eat

MWR: Morale, Welfare, and Recreation

OCONUS: Outside the Continental United States

PHC: Public Health Command

PHCD: Public Health Command District

PHCR-S: Public Health Command-Region South

PHF: Potentially Hazardous Foods

RTE: Ready-to-Eat

SOP: Standing Operating Procedures

USDA: United States Department of Agriculture

Section II - Terms

Aerobic Plate Count (APC): Indicator of level of live aerobic mesophilic bacteria in food items. APC is used to evaluate sanitary condition of food product or equipment. APC is also referred as Total Plate Count (TPC) and Heterotrophic Plate Count (HPC) in water.

Approved Source: An establishment listed in the Circular 40-1, Worldwide Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement; or an establishment which meets the criteria for exemption as defined by Cir 40-1 Para 3.c.; or a locally approved food establishment.
Coliform: Heterogeneous group of microorganisms that can be found in both feces and the environment; presence does not always mean fecal contamination. Coliform group comprises aerobic, facultative anaerobic, Gram-negative, heat-sensitive non-spore-forming rods able to ferment lactose with production of acid and gas. Typical coliforms include *Escherichia*, *Enterobacter*, and *Klebsiella.*

Condition: The appearance, feel, smell, taste and sometimes sound characteristics of the product.

Fresh Dairy Products: items described in Part II, Section I, paragraph N, of the "Grade A Pasteurized Milk Ordinance (PMO) - 1993, Recommendation of the United States Public Health Service." These milk products include cream, light cream, light whipping cream, heavy cream, heavy whipping cream, whipped cream, whipped light cream, sour cream, acidified sour cream, cultured sour cream, half-and-half, sour half-and-half, acidified sour half-and-half, cultured half-and-half, reconstituted or recombined milk and milk products, concentrated milk, concentrated milk products, skim milk, low fat milk, frozen milk concentrate, eggnog, buttermilk, cultured buttermilk, cultured milk, cultured low fat milk, cultured skim milk, yogurt, low fat yogurt, nonfat yogurt, acidified milk, acidified low fat milk, acidified skim milk, low-sodium milk, low-sodium low fat milk, low-sodium skim milk, lactose-reduced milk, lactose-reduced low fat milk, lactose-reduced skim milk.

Frozen Desserts: Products that include ice cream, mellorine, sherbert, ice milk, ice cream mix, ice milk mix, milk shake mix, and other similar frozen desserts, including frozen novelties.

Heterotrophic Plate Count (HPC): Used to monitor water treatment efficiency. Heterotrophs include bacteria that are part of the natural (generally non-hazardous) microflora of water; not of human or animal origin.

Infestable Food Items: Food items (to include dry pet food) whose nature and method of packaging make them subject to actual or potential pest infestation. In

some locations, all grains may be considered infestable.

Inspection for Condition: A determination that the product's appearance, feel, smell or taste at the time of delivery, are as required by the contract, and applicable regulatory documents.

Inspection for Identity: A determination that the item delivered conforms to contractual requirements for product characteristics. It is also a determination that, if the item was inspected at origin, it is in fact the item produced, inspected, and shipped for the contract.

Inspection for Packing, Packaging, Marking, and Labeling: A determination that the packaging, packing, marking, and labeling are as required by contractual documents and federal law.

Inspection for Quality: To determine that the product conforms to required quality factors (e.g. quality assurance provisions, degree of excellence or grade, customer appeal, etc.).

Inspection for Quantity: To determine that the product conforms to cited contractual documents (e.g. net weight, drained weight, volume, or count per shipping container).

Multi-line Items: A delivery of food subsistence that contains numerous different types of food subsistence. (e.g. A delivery containing eggs, milk, yogurt, cheese, biscuits, juice).

Obvious Defect: A defect that would result in finding the product to be nonconforming to contract requirements or otherwise unacceptable if a full destination inspection was performed.

Off-Condition: Any variation from the expected appearance, feel, smell, or taste characteristics of a product.

Open Package Inspection (OPI): An inspection of the individual unit, piece or item of product to determine identity, condition and quality, without causing any loss, destruction, or alteration of product characteristics affecting intended use. Upon completion of the inspection, the product shall be replaced in its original primary container, sealed, and returned to the master container for future use.

Percent (%) Defective: The percent defective of any given quantity of units of product is one hundred times the number of defective units of product contained therein divided by the total number of units of product.

Perishable Food Items: Food items that under normal conditions must be chilled

or frozen in order to prevent spoilage/deterioration.

Potentially Hazardous Foods: Any food that consists in whole or in part of milk or milk products, eggs, meats, poultry, fish, shellfish, edible crustacean (shrimp, lobster, crab, etc.) or other natural or synthetic ingredients capable of supporting rapid and progressive growth of infectious or toxigenic microorganisms.

Primary Container: The immediate container in which the product is packaged and which serves to protect, preserve, and maintain the condition of the product. It may be metal, glass, fiber, wood, textile, plastic, paper, or any other suitable type of material and may be supplemented by liners, over wraps, or other protective material.

Psychrotrophic Plate Count (PPC): Measures level of live aerobic psychrotrophic ("cold-loving") bacteria in food and dairy items. PPC can be used to evaluate sanitary condition of refrigerated foods/equipment

Quality Assurance Provisions (QAPs): Documents which includes all requirements for quality and reliability assurance, both administrative and technical (e.g. Blank Purchase Agreement (BPA), Technical Data Sheet (TDS), Contract, etc.).

Ready-To-Eat: a food product that is in a form that is edible without additional preparation, to include washing and cooking, to achieve food safety, but may receive additional preparation for palatability or aesthetic, epicurean, gastronomic, or culinary purposes.

Representative Sample: Sample items drawn from various locations throughout the load or lot.

Retail Activity: An establishment, or section of an establishment, where food and food products are offered for issue or resale to the final consumer, i.e. commissary stores, Morale, Welfare & Recreation (MWR) facilities, exchanges, shoppettes, Troop feeding facilities, etc.).

Sampling Plan: A written method for determining sample size and associated acceptance criteria.

Semi-Perishable Food Items: Food items that are canned, dried, dehydrated, or otherwise processed to the extent that they do not require refrigeration.

Shipping (Master) Container: The external container that protects the primary container. It affords adequate protection against corrosion, deterioration, and physical damage during shipment, handling, and intermediate storage.

Standard Plate Count (SPC): Measures level of live aerobic mesophilic bacteria in dairy items. It is used to evaluate sanitary conditions of dairy products and/or equipment and utensils.

Troop Feeding Activities: Government food preparation facilities such as: Dining Facilities, Galleys, Ship's Mess, etc.

Unwholesome: Food that may be injurious or unsafe to the health of the consumer and may cause illness or death to the consumer.

Wholesale Activity: Any establishment storing perishable or semi-perishable subsistence that requires preparation or distribution to a government agency (e.g. Defense Subsistence Operation (DSO), DSO Supply Point, Produce Buying Office (PBO), Terminal Market Buying Office (TMBO), Defense Depot, etc.